

# Facet Importance and Job Satisfaction

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Two hypotheses concerning the moderating effects of facet importance were derived from Locke's (1969, 1976) theory of job satisfaction. Questionnaire data concerning 12 job facets were collected from 97 working college students holding diverse jobs in different organizations. Moderated regression analyses of facet satisfaction showed facet importance to be a significant moderator for 9 of the 12 job facets. As hypothesized, the relationship between facet amount and facet satisfaction was generally stronger among respondents placing high importance on the job facet than among respondents placing low importance on it. Moderated regression analyses of overall job satisfaction showed facet importance to be a nonsignificant moderator for 11 job facets. As hypothesized, the relationship between facet satisfaction and overall job satisfaction generally did not change significantly as a function of facet importance. Discussion is focused on the need to recognize when facet importance plays a moderator role and when it does not. Also discussed is the relative usefulness of seven self-report procedures for measuring facet importance.

Despite the tremendous volume of job-satisfaction research conducted over the last 50 years, there are still many unanswered questions about the nature of job satisfaction. One such question concerns the role of facet importance in determining satisfaction. Currently, there is confusion and controversy surrounding this issue. Locke's (1969, 1976) theory of satisfaction provides a means of clarifying the role played by facet importance. The primary purpose of the present study was to test two facet-importance hypotheses derived from Locke's theory. Taken together, these two hypotheses specify when facet importance does play a moderator role in determining satisfaction and when it does not play such a role.

## Conceptual Framework: Locke's Theory

The following analysis of facet importance rests on a fundamental distinction between *facet satisfactions* and *facet descriptions*. Job facets are the individual components that make up one's experience at work (e.g., promotion opportunity, pay, co-workers, autonomy).

Facet satisfactions are affective evaluations of individual job facets. To measure facet satisfactions, one can ask such questions as: "How do you feel about the amount of opportunity for promotion that you have on your job?"

Facet descriptions are affect-free perceptions about the experiences associated with individual job facets. There are several

alternative methods for measuring such job descriptions, including (a) direct reports of facet amount (e.g., "How much opportunity for promotion do you have on your job?"), (b) comparisons of current facet amount against some explicit standard of comparison (e.g., "Compared to what you currently have, do you want more, less, or the same opportunity for promotion on your job?"), or (c) difference scores calculated by subtracting a direct report of facet amount from a specified standard of comparison (e.g., current promotion opportunity minus wanted promotion opportunity). According to Locke and Latham (1990), these various measurement procedures all assess "value fulfillment, either directly or indirectly . . . [and] the choice among measures is really more of a psychometric than a conceptual issue" (p. 231). In the present article, we used only direct reports of facet amount to measure facet descriptions. Although Locke and Latham (1990) claimed that all three procedures are functionally equivalent and therefore equally valid for testing hypotheses derived from Locke's (1969, 1976) model, direct reports of facet amount seem conceptually closer to the idea of affect-free perceptions than do the other two measures.

## Facet Descriptions and Facet Importance

According to Locke's (1969, 1976) theory, facet descriptions interact with facet importance to determine facet satisfaction. More specifically, the personal importance associated with a given facet serves as a weighting factor, capable of moderating the strength of the relationship between facet descriptions and facet satisfaction. For example, the relationship between perceived amount of promotion opportunity and satisfaction with promotion opportunity is moderated by the degree of importance attached to promotion opportunity. The nature of this proposed moderator effect is best described by comparing the relationship between facet descriptions and facet satisfaction for two groups of respondents: (a) those attaching high impor-

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tance to the facet in question, and (b) those attaching low importance to the that same facet.

Among workers attaching high importance to the job facet, the relationship between facet descriptions and facet satisfaction is expected to be strong, with satisfaction responses extending across the full range of the satisfaction–dissatisfaction dimension. That is, workers can feel highly satisfied, neutral, or highly dissatisfied about a job facet that is important to them.

Among workers attaching low importance to the job facet, however, the relationship between facet descriptions and facet satisfaction is expected to be weak. Whether they experience large or small amounts of the job facet on their jobs, such workers will respond within a restricted range of affect, hovering around the midpoint of the satisfaction–dissatisfaction dimension (i.e., affectively neutral responses). According to Locke (1969, 1976), workers cannot feel highly satisfied or highly dissatisfied with a facet that is not important to them. Because of this attenuated range in affective responses, the relationship between facet amount and facet satisfaction is expected to be weaker among respondents for whom the job facet is not personally important.

On the basis of Locke's (1969, 1976) analysis, we derived the following hypothesis regarding the relationships among facet amount, facet importance, and facet satisfaction:

*Hypothesis 1.* The relationship between facet amount and facet satisfaction is stronger for respondents reporting high facet importance than for respondents reporting low facet importance.

We stated this first hypothesis in terms of facet amount because we relied on this approach to operationalize the concept of facet descriptions.

### *Facet Satisfaction and Overall Job Satisfaction*

With regard to the relationship between facet satisfaction and overall job satisfaction, Locke (1969, 1976) proposed an unweighted additive approach. According to this view, overall job satisfaction is determined by the simple sum of satisfactions associated with each facet of the worker's job. In his discussion of overall job satisfaction, Locke (1969, 1976) proposed explicitly that there is no value in weighting facet satisfaction by facet importance when using facet satisfaction responses to predict overall job satisfaction. In defending this proposition, Locke relied on the concept of implicit or redundant weightings (Dachler & Hulin, 1969; Locke, 1969, 1976; Mobley & Locke, 1970). This argument is based on the analysis of facet satisfaction presented previously. Because facet importance determines, in part, the level of satisfaction associated with each job facet, the importance of a facet is implicitly reflected in each facet-satisfaction score. Extreme satisfaction or extreme dissatisfaction with any particular facet implies that the facet has high personal importance. Because facet importance is implicitly reflected in each facet-satisfaction score, it is conceptually and statistically redundant to consider facet importance as a moderator of the relationship between facet satisfaction and overall job satisfaction.

On the basis of Locke's (1969, 1976) analysis, we expected the relationship between facet satisfaction and overall job satisfaction to be significant for most job facets, but we did not expect

facet importance to moderate the relationship between facet satisfaction and overall job satisfaction. These expectations can be restated in the form of the following hypothesis:

*Hypothesis 2.* The relationship between facet satisfaction and overall job satisfaction is just as strong for respondents reporting low facet importance as for respondents reporting high facet importance.

### *Prior Research On Facet Importance as a Moderator*

Job-satisfaction research testing facet importance as a moderator has produced inconsistent results. Some studies have yielded significant moderator effects for facet importance, whereas other studies have not. These studies were not necessarily designed to test Hypotheses 1 and 2. For the most part, however, the obtained patterns of results can be explained with these two hypotheses.

### *When Facet Importance Matters*

In most previous studies in which facet importance did play a moderating role, some measure of facet satisfaction or overall job satisfaction was predicted from a combination of facet-importance and facet-description variables (e.g., Butler, 1983; Locke, 1969; Locke, Fitzpatrick, & White, 1983; Mastekaasa, 1984; Mobley & Locke, 1970). Significantly stronger relationships between facet descriptions and either facet satisfaction or overall job satisfaction were found for workers who rated the facet high in importance than for workers who rated the facet low in importance. Such results are consistent with Hypothesis 1.

### *When Facet Importance Does Not Matter*

In most previous studies in which facet importance did not play a moderating role, some measure of overall job satisfaction, or a satisfaction-related variable such as turnover, was predicted from a combination of facet-importance and facet-satisfaction variables (e.g., Blood, 1971; Ewen, 1967; Mikes & Hulin, 1968; Quinn & Mangione, 1973). In these studies, moderator effects were generally examined with weighted satisfaction scores. Such scores are calculated by multiplying the facet-importance score by the facet-satisfaction score for each respondent. The consistent result from such studies is that these weighted scores combining facet importance and facet satisfaction were no more predictive of overall job satisfaction, turnover, or related criterion scores than were the simpler unweighted facet-satisfaction scores. Similar results have been obtained from studies of life satisfaction. In such studies, overall life satisfaction was predicted from satisfaction with specific life domains, such as job, family, or leisure (e.g., Andrews & Withey, 1976; Campbell, Converse, & Rodgers, 1976). Such analyses have consistently shown that there is no predictive advantage in using domain satisfaction scores that have been weighted by domain importance. The results of these job-satisfaction and life-satisfaction studies are consistent with Hypothesis 2.

Overall, this previous research suggests that facet importance moderates the relationship between facet descriptions

and facet satisfaction but not the relationship between facet satisfaction and overall job satisfaction. These results provide tentative support for our conceptual effort to discriminate between conditions in which importance ratings will and will not yield significant moderator effects. In none of these previous studies, however, were both of the moderator effects represented by our two hypotheses directly tested. Only one type of moderator effect was considered in each study. Consequently, reported differences in results from these studies may be a function of other factors on which these studies typically differ from one another: the size and nature of samples, measurement procedures, data analysis techniques, and so forth. Hence, the apparent consistency between previous results and our hypotheses may not be solely a function of the difference in the relationships being moderated by facet importance. In the present study, we controlled for these alternative interpretations by testing both hypotheses with the same sample, the same procedures for measuring facet importance, and the same data analysis techniques. Given these controls, the present study provides a more rigorous and meaningful analysis of the role played by facet importance in determining job satisfaction.

### Alternative Measures of Facet Importance

We also considered alternative methods for measuring facet importance. Although there has been much research involving facet importance, there appears to be little consensus regarding the best methods for measuring this construct. For example, some researchers have used ratings of importance, whereas others have used rankings (e.g., Blood, 1971; Dachler & Hulin, 1969; Ewen, 1967). Although there have been some general studies of procedures for measuring importance (e.g., Jaccard & Sheng, 1984; Schmitt & Levine, 1977), we are aware of no job-satisfaction studies in which several alternative measures of facet importance were compared. In the present study, we collected seven self-report measures of facet importance. Each measure of facet importance was used to test our hypotheses.

## Method

### Subjects

The sample consisted of 97 employed college students from Buffalo, New York. All subjects were enrolled in introductory psychology classes at the time of the study and received academic credit in exchange for their participation. These subjects worked in many different organizations and typically held the types of jobs one would expect of students working part-time (e.g., food-service worker, retail clerk, cashier). To participate in the study, respondents had to have a minimum of 120 hours experience in their current job.

The following demographics describe this sample. The mean age was 18.84 years ( $SD = 1.86$ ), and 46% of the sample were men. The mean hourly rate of pay was \$3.79 ( $SD = .65$ ); the mean number of hours worked per week was 20.37 ( $SD = 6.99$ ); and the mean job tenure was 14.22 months ( $SD = 11.93$ ).

### Procedure

Subjects completed a questionnaire assessing overall job satisfaction, facet satisfaction, facet amount, and facet importance. Other vari-

ables that are not part of the present study were assessed by other segments of this questionnaire.

**Overall job satisfaction.** A six-item scale assessed overall job satisfaction (maximum score = 22.00,  $M = 16.99$ ,  $SD = 3.38$ ). This scale includes the five facet-free job-satisfaction items developed by Quinn and Staines (1979) for the Quality of Employment Survey (e.g., "In general, how well would you say that your job measures up to the sort of job you wanted when you took it?"). Added to these standard questions was a sixth item asking "How do you feel about your job overall?". For this sixth item, Andrews and Withey's (1976) delighted-terrible (D-T) scale provided the response alternatives (the D-T scale is described in some detail in the following section.). The composite scale score was calculated by summing responses to the six items. Reliability for the six-item scale was high ( $\alpha = .83$ ).

**Job facets.** Three other segments of the questionnaire focused on the following 12 job facets: hourly rate of pay, number of hours worked per week, number of minutes required to commute to work, opportunity for promotion, informal conversation with co-workers while at work, face-to-face contact with clients or customers, opportunity to learn new skills, decision making, physical effort required by the job, mental effort required by the job, face-to-face contact with supervisor, and control over work schedule. On each separate page of the questionnaire, these 12 job facets were always listed in this order.

**Facet satisfaction.** Satisfaction with each job facet was measured with Andrews and Withey's (1976) D-T scale. This 7-point scale has the following verbal anchors: *delighted* (7), *pleased* (6), *mostly satisfied* (5), *mixed (about equally satisfied and dissatisfied)* (4), *mostly dissatisfied* (3), *unhappy* (2), and *terrible* (1). Using these response alternatives, respondents reported their job feelings, for example, "How do you feel about your hourly rate of pay?". Andrews and Withey (1976) provided a detailed description of the scale development research underlying this format.

**Facet amount.** Respondents reported the amount of each job facet they were currently experiencing on their job. For three job facets (pay, hours worked per week, and commuting time), respondents simply wrote the appropriate number to answer these questions, for example, "How much time does it take you to get to work?". For the other nine job facets, respondents used the following 5-point scale to report the amount of each facet they were currently experiencing: *none* (1), *very little* (2), *a moderate amount* (3), *very much* (4), and *an extraordinary amount* (5). These adjectives were selected after consulting Bass, Cascio, and O'Connor's (1974) magnitude-estimation data for adjectives expressing amounts. According to their results, these five adjectives provide approximately equal intervals with minimal overlap in the numerical values assigned to each scale point.

**Facet importance.** Seven alternative measures were used to assess the importance of each job facet: four rating methods, two ranking methods, and a point-distribution method. The first rating method (Rating 1) was a direct rating of facet importance on a 9-point scale with two verbal anchors: *not at all important* and *extremely important* (e.g., "How important to you is the amount of opportunity for promotion?"). The second rating method (Rating 2) was similar but included explicit reference to how much of the job facet the respondent wanted (e.g., "How important is it for you to have as much opportunity for promotion as you want?"). The third rating method (Rating 3) excluded reference to current job experiences (e.g., "How important is the opportunity for promotion in your job, regardless of the amount of opportunity you currently have in your job?"). The first ranking method (Rank 1) required subjects to order the 12 job facets in terms of their general importance, and the second (Rank 2) required subjects to order the facets in terms of the importance of getting as much of the facet as the subjects wanted. In the point-distribution method (Points), subjects assigned points to each job facet in a manner that reflected the importance of each facet (a total of 100 points was distributed among the 12

job facets). Finally, in the fourth rating method (Rating 4), respondents indicated the importance of getting more (or less) of each job facet than they were currently experiencing (respondents not desiring any change in facet amount were asked how important it was to maintain their current level). The two sets of ranking responses were recoded so that the most important facet was given a score of 12 and the least important facet was given a score of 1. Consequently, high scores reflect high levels of importance for all seven measures of facet importance.

The means and standard deviations for each of these seven methods for evaluating facet importance are presented in Table 1. There is considerable consistency among these scores. Spearman rank order correlations among the means presented in Table 1 ranged from .88 to .99. For all seven methods, the most important facets were pay, number of hours worked per week, and control over schedule. The least important facets were commuting time, amount of contact with supervisor, and amount of mental effort required. The facets with the greatest intersubject variance in importance ratings were promotion opportunity, commuting time, customer or client contact, and contact with supervisor.

Given the similar rank ordering of the means across the seven measures of facet importance, it is not surprising to find that the intercorrelations among the raw scores produced by these seven measures were quite high within each of the 12 job facets (mean  $r$ s ranged from .38 to .61 for the 21 correlations contained in each of these 12 correlation matrices). Such results suggest that all seven measures were assessing the same underlying concept in a consistent manner. Accordingly, the seven original measures for each job facet were summed to create a single composite scale of facet importance for each of the 12 facets. Each of these 12 composite importance scales had a high degree of internal consistency; the 12 alpha coefficients ranged from .81 to .92. Before creating these composite scales, we standardized each of the seven importance scores for each facet ( $z$  scores). This standardization procedure ensured that each of the seven original measures of facet importance had an equal weight in determining the composite scale of facet importance. Unless otherwise indicated, we use only this composite scale of facet importance in the substantive analyses reported in later sections of this article.

*Counterbalancing.* To control for possible order effects resulting from the sequence in which specific segments of the questionnaire were answered, we created alternative forms of the questionnaire. The specific items constituting each form of the questionnaire were identical. We simply counterbalanced the order of the questionnaire segments, following a modified Latin square strategy. Because there were approximately as many significant order effects as one would expect by

chance, the data provided by the different forms of the questionnaire were combined into a single data set based on 97 cases.

## Results

### *Descriptive Statistics*

For each of the 12 job facets, the means and standard deviations for measures of facet satisfaction, facet amount, and facet importance are presented in Table 2. The intercorrelations among these three measures for each of the 12 job facets are presented in Table 3. For each of these three sets of correlations, the mean correlations and the mean absolute value of the correlations are also provided in Table 3.

The mean facet-importance scores presented in Table 2 are nearly identical for each of the 12 facets. This result is mathematically predetermined because of the standardization procedure used to calculate the composite measure of importance for each facet. This procedure gave every facet a mean of 0.00 for each of the seven methods for measuring facet importance. The mean of scores from seven distributions each having a mean of 0.00 must equal 0.00 (aside from deviations introduced by rounding error and the effects of some missing data). The standard deviations of these composite scores are not mathematically predetermined; these values ranged from .70 to .84.

Because the mean composite score for facet importance was approximately 0.00 for each facet, the mean composite scores presented in Table 2 cannot be used to assess the importance of any one particular facet relative to the 11 other facets. The composite measures calculated for each subject do, however, reflect the importance of a particular facet for one subject relative to the 96 other subjects. The relative standing of each subject within each of the seven distributions for each of the 12 job facets is not changed by the standardization procedure. Hence, subjects for whom a particular facet was more important will have higher composite importance scores for that facet than will subjects for whom the facet was less important. Because our hypotheses were concerned with the relative importance of

Table 1  
*Descriptive Statistics for the Seven Measures of Facet Importance*

Job facet	Rating 1		Rating 2		Rating 3		Rank 1		Rank 2		Points		Rating 4	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Hourly pay (dollars)	7.4	1.7	6.8	1.9	7.5	1.5	10.2	2.6	10.2	2.5	17.0	8.4	6.7	1.9
Hours per week	7.3	1.7	7.4	1.9	7.4	1.8	9.2	2.5	9.0	2.6	13.4	5.9	6.9	2.0
Commuting time (minutes)	4.3	2.2	4.8	2.4	4.8	2.6	3.6	3.1	3.6	3.0	4.6	4.6	5.1	2.5
Promotion opportunity	6.3	2.2	6.3	2.2	6.3	2.4	7.5	3.2	7.8	3.1	9.1	6.4	6.0	2.1
Conversation with co-workers	6.0	2.0	6.0	2.0	6.2	2.1	5.8	5.8	2.9	3.1	7.4	5.7	6.2	2.3
Customer or client contact	5.7	2.2	5.6	2.3	5.8	2.7	5.5	3.1	5.3	3.0	5.9	4.6	5.9	1.9
Opportunity to learn skills	6.7	1.8	6.7	2.0	6.8	2.0	6.9	3.1	6.9	3.2	8.2	5.2	6.5	1.9
Decision making	6.4	1.4	6.2	1.8	6.6	1.7	6.5	2.5	6.5	2.5	6.8	4.8	6.0	1.8
Physical effort required	5.4	1.9	6.0	1.9	5.3	2.0	4.2	2.4	4.2	2.6	4.9	3.8	5.4	2.0
Mental effort required	6.1	1.6	6.1	1.7	6.2	1.8	5.5	2.5	5.4	2.6	5.9	4.4	6.1	1.8
Supervisor contact	5.3	2.2	5.6	2.3	5.5	2.2	4.2	2.7	4.4	2.9	4.5	3.9	5.8	2.1
Control over schedule	7.3	1.9	7.6	1.7	7.6	1.5	8.7	3.0	8.9	2.9	12.3	6.9	7.4	1.8

*Note.* High scores reflect high importance for all measurement methods.

**Table 2**  
*Descriptive Statistics for Measures of Facet Satisfaction, Amount, and Importance*

Job facet	Facet satisfaction		Facet amount		Facet importance	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Hourly pay (dollars)	4.30	1.20	3.79	0.65	-.01	.73
Hours worked per week	5.11	1.15	20.37	6.99	-.04	.76
Commuting time (minutes)	5.68	1.30	11.31	8.27	-.02	.81
Promotion opportunity	3.93	1.38	2.44	0.91	-.01	.84
Conversation with co-workers	5.45	1.16	3.78	0.89	-.01	.80
Customer or client contact	4.93	1.33	4.26	1.25	.01	.80
Opportunity to learn skills	4.32	1.32	2.97	1.01	.00	.82
Decision making	4.38	1.28	3.06	0.92	.02	.70
Physical effort required	4.73	1.28	3.10	1.01	-.02	.76
Mental effort required	4.46	1.24	3.11	0.75	-.03	.70
Supervisor contact	4.73	1.37	3.68	0.95	-.02	.76
Control over schedule	5.24	1.65	3.44	0.96	.00	.72

*Note.* Facet importance is a composite of seven standard scores.

a single facet among different subjects, the composite measure for each facet was well suited to our needs.

*Preliminary Analyses of Quadratic Relationships*

Before using moderated regression analyses to test our major hypotheses, we tested for curvilinearity in two key relationships: (a) the prediction of facet satisfaction as a function of facet amount, and (b) the prediction of overall job satisfaction as a function of facet satisfaction. These tests were necessary because Locke (1969, 1976, 1984) suggested that some of these functions may have a quadratic form. In the first of these analyses, facet satisfaction was the dependent variable, and two predictor variables were entered hierarchically into the regression equation: facet amount (Step 1) and the squared value of the facet-amount score (Step 2). When there is a significant quadratic trend to the relationship, the increment in *R*<sup>2</sup> is signifi-

cant at Step 2. In the second set of analyses, overall job satisfaction was the dependent variable and the two predictors were facet satisfaction and squared facet-satisfaction scores. Both of these analyses were performed on each of the 12 facets.

When facet amount was used to predict facet satisfaction, 5 of the 12 facets had a significant quadratic component. The increments in *R*<sup>2</sup> for these significant quadratic effects ranged from .04 to .11: for promotion opportunity,  $\Delta R^2 = .04$ ; for conversation with co-workers,  $\Delta R^2 = .05$ ; for decision making,  $\Delta R^2 = .11$ ; for physical effort,  $\Delta R^2 = .05$ ; and for contact with supervisor,  $\Delta R^2 = .08$ .

When facet satisfaction was used to predict overall job satisfaction, 2 of the 12 facets had a significant quadratic effect: for decision making,  $\Delta R^2 = .03$ ; and for control over schedule,  $\Delta R^2 = .07$ .

*Hypothesis 1*

*Mode of analysis.* To test the prediction that facet amount and facet satisfaction are more strongly related for respondents giving higher ratings of facet importance, we performed 12 separate moderated regression analyses (Arnold & Evans, 1979; Cohen & Cohen, 1983; Zedeck, 1971), one for each job facet. The dependent variable in each of these analyses was facet satisfaction. The three predictors were facet amount and facet importance (Step 1) and the cross product computed by multiplying the facet-amount score by the facet-importance score for each respondent. When entered into the regression equation at Step 2, this cross product represents the Facet Amount  $\times$  Facet Importance interaction. If this second step provided a significant increment in *R*<sup>2</sup>, there is evidence of a significant moderator effect.

For the five facets with a significant quadratic component, the moderated regression analysis was modified to include the squared facet-amount score in Step 1 and the interaction term involving the squared facet amount in Step 2. According to Jaccard, Turrisi, and Wan (1990, pp. 57 and 60), the significance of interactions involving quadratic terms should be tested

**Table 3**  
*Intercorrelations Among Measures of Facet Satisfaction (FS), Amount (FA), and Importance (FI)*

Job facet	FS & FA	FS & FI	FA & FI
Hourly pay (dollars)	.34**	-.10	.08
Hours worked per week	-.14	.00	-.02
Commuting time (minutes)	-.71**	-.15	.14
Promotion opportunity	.38**	.39**	.18
Conversation with co-workers	.35**	.44**	.57**
Customer or client contact	.09	.43**	.32**
Opportunity to learn skills	.57**	-.06	.35**
Decision making	.50**	-.13	.26**
Physical effort required	-.03	.08	.21*
Mental effort required	.12	-.33**	.23*
Supervisor contact	.08	.33**	.30**
Control over schedule	.73**	.10	.25*
Mean <i>r</i>	.21	.09	.24
Mean $ r $	.37	.22	.25

\* *p* < .05 (two-tailed). \*\* *p* < .01 (two-tailed).

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by comparing the  $R^2$  value for the three-predictor equation based solely on the main-effect predictors (Step 1) with the  $R^2$  value for the five-predictor equation that also includes the two interaction predictors (Step 2). In this case, facet amount, the squared facet amount, and facet importance were entered in Step 1 and were compared with facet amount, the squared facet amount, facet importance, the Facet Amount  $\times$  Facet Importance interaction and the Squared Facet Amount  $\times$  Facet Importance interaction, which were all included in Step 2.

*Findings.* Step 2 was significant for 9 of these 12 analyses (see Table 4). Such results demonstrate that facet importance did generally moderate the relationship between facet amount and facet satisfaction.

To determine whether these significant moderators conformed to the pattern described in Hypothesis 1, we plotted the interactions. Following the procedures recommended by Cohen and Cohen (1983), we calculated separate regression equations predicting facet satisfaction from facet amount for a score one standard deviation above the mean on facet importance (to represent high-facet-importance respondents) and for a score one standard deviation below the mean on facet importance (to represent low-facet-importance respondents). For those facets with a significant quadratic component, the regression equations included the quadratic terms, creating a total of five predictors (i.e., facet amount, squared facet amount, facet importance, Facet Amount  $\times$  Facet Importance, and Squared Facet Amount  $\times$  Facet Importance).<sup>1</sup>

For each of these 9 significant moderator effects, the form of the interaction was consistent with Hypothesis 1.<sup>2</sup> Figure 1a presents a typical interaction for facets without a significant quadratic effect and Figure 1b presents a typical interaction for facets with a significant quadratic effect. These moderator effects all indicate that the relationship between facet amount

and facet satisfaction was stronger for respondents scoring high on facet importance than for respondents scoring low on facet importance. This difference in the strength of the relationship between facet amount and facet satisfaction is reflected by differences in the slope of the regression lines for respondents high and low on facet importance.

### Hypothesis 2

*Mode of analysis.* To test the prediction that the relationship between facet satisfaction and overall job satisfaction is not influenced by facet importance, we conducted 12 additional moderated regression analyses, one for each job facet. The dependent variable in each of these analyses was overall job satisfaction. The three predictors were: facet satisfaction and facet importance (Step 1) and the cross product created by multiplying the facet-satisfaction score by the facet-importance score for each respondent (Step 2). When entered into the regression equation at Step 2, this cross product represents the Facet Satisfaction  $\times$  Facet Importance interaction. If this second step provides a significant increment in  $R^2$ , there is evidence of a significant moderator effect.

*Findings.* These analyses generally supported Hypothesis 2. Of the 12 job facets tested, only 1 (control over schedule) yielded a significant increment in  $R^2$  at Step 2 (see Table 5). The form of this interaction was similar to the Facet Amount  $\times$  Facet Importance interactions shown in Figure 1, with a steeper slope for respondents attributing higher levels of importance to control over schedule. Aside from this single exception, the relationship between facet satisfaction and overall job satisfaction was not moderated by facet importance. As predicted, the positive relationship between facet satisfaction and overall job satisfaction was generally just as strong for respondents reporting low facet importance as for respondents reporting high facet importance.

For all but three job facets (commuting time, conversation with co-workers, and physical effort required), the main effects of facet satisfaction were statistically significant, accounting for up to 23% of the variance in overall job satisfaction (see Table 5). This general pattern of significant main effects supports the additive model of overall job satisfaction proposed by Locke (1969, 1976); satisfaction with specific job facets generally contributes to feelings of overall job satisfaction. The general failure to find significant interactions adds to the substantive interpretation of these results, demonstrating that facet importance does not generally influence the degree to which facet satisfaction contributes to overall job satisfaction.

Table 4  
Results of Moderated Regression Analyses Predicting Facet Satisfaction From Facet Amount and Facet Importance

Job facet	$R^2$		
	Step 1	Step 2	Increment
Hourly pay (dollars)	.136**	.148**	.012
Hours worked per week	.018	.019	.001
Commuting time (minutes)	.518**	.579**	.061**
Promotion opportunity <sup>a</sup>	.400**	.467**	.067**
Conversation with co-workers <sup>a</sup>	.281**	.485**	.204**
Customer or client contact	.189**	.467**	.278**
Opportunity to learn skills	.406**	.437**	.031*
Decision making <sup>a</sup>	.409**	.510**	.101**
Physical effort required <sup>a</sup>	.065	.238**	.173**
Mental effort required	.148**	.210**	.062**
Supervisor contact <sup>a</sup>	.176**	.181**	.005
Control over schedule	.542**	.627**	.085**

Note. Significance values given are for total  $R^2$  at each step or for the increment in  $R^2$ .

<sup>a</sup> This facet had a significant quadratic effect, and therefore the squared facet amount was included as a predictor in Step 1 and the Squared Facet Amount  $\times$  Facet Importance interaction was included as a predictor in Step 2.

\*  $p < .05$ . \*\*  $p < .01$ .

<sup>1</sup> Complete regression equations for all 12 job facets are available from Robert W. Rice.

<sup>2</sup> Because commuting time is a job facet for which small amounts represent a positive outcome (i.e., a brief commute), the relationship between facet amount and facet satisfaction was negative (see Table 3). Consequently, the interaction for this job facet shows that the negative relationship was stronger for high-importance respondents than for low-importance respondents. If commuting time were reverse scored so that a high score for this job facet represented a positive event, this interaction would show the same pattern shown by the other facets represented by Figure 1.

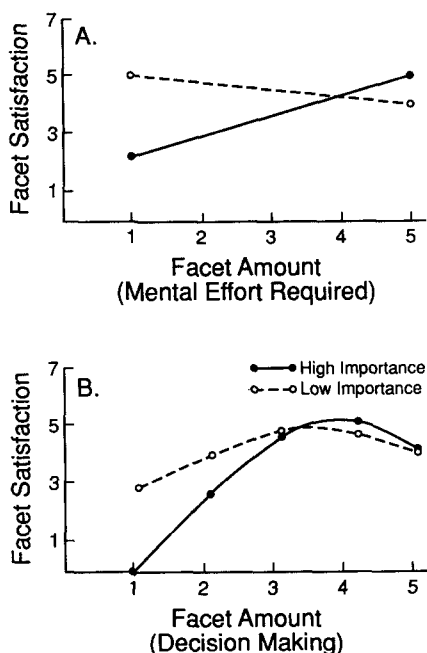


Figure 1. The moderating effect of facet importance for a linear facet (Figure 1a) and a quadratic facet (Figure 1b).

Interfacet Correlations

Each analysis reported so far was performed separately for each individual job facet. This strategy raises questions about correlations among the 12 facets. High correlations would indicate redundancy in our analyses of separate facets. To consider

Table 5  
Results of Moderated Regression Analyses Predicting Overall Job Satisfaction From Facet Satisfaction and Facet Importance

Job facet	R <sup>2</sup>		
	Step 1	Step 2	Increment
Hourly pay (dollars)	.155**	.160**	.005
Hours worked per week	.160**	.164**	.004
Commuting time (minutes)	.003	.004	.001
Promotion opportunity	.138**	.140**	.002
Conversation with co-workers	.033	.035	.002
Customer or client contact	.165**	.166**	.001
Opportunity to learn skills	.237**	.245**	.008
Decision making <sup>a</sup>	.267**	.275**	.008
Physical effort required	.038	.038	.000
Mental effort required	.199**	.199**	.000
Supervisor contact	.168**	.170**	.002
Control over schedule <sup>a</sup>	.250**	.292**	.042*

Note. Significance values given are for total R<sup>2</sup> at each step or for the increment in R<sup>2</sup>.

<sup>a</sup> This facet had a significant quadratic effect, and therefore the squared facet-satisfaction score was included as a predictor in Step 1 and the Squared Facet Satisfaction × Facet Importance interaction was included as a predictor in Step 2.

\* p < .05. \*\* p < .01.

this issue, we examined the 12 × 12 correlation matrix separately for each of the three facet measures: facet satisfaction, facet importance, and facet amount. The 66 correlations in each of these three matrices were generally small, with few correlations exceeding .40; only 6 of the facet-satisfaction intercorrelations, 4 of the facet-importance intercorrelations, and 3 of the facet-amount intercorrelations met this standard.<sup>3</sup> Exploratory factor analyses were performed on each correlation matrix. These analyses failed to identify a factor structure that was interpretable and consistent across the three types of facet measures considered (i.e., facet satisfaction, facet amount, and facet importance). This pattern of results supports our decision to perform all substantive analyses on individual job-facet scores rather than on factor scores.

Discussion

Consistent with the two hypotheses derived from Locke's (1969, 1976) theory of job satisfaction, the moderating power of facet importance depended on the relationship being moderated. The relationship between facet description and facet satisfaction was generally moderated by individual differences in facet importance, thereby supporting Hypothesis 1. The relationship between facet satisfaction and overall job satisfaction, however, was not generally moderated by individual differences in facet importance, thereby supporting Hypothesis 2.

The present results are generally consistent with previous studies (e.g., Blood, 1971; Butler, 1983; Mikes & Hulin, 1968). Unlike the present study, however, none of these previous studies provided the results needed for a direct comparison of the two types of moderator effects considered by the two hypotheses derived from Locke's (1969, 1976) theory. Any effort to compare these two types of moderator effects by using results from these previous studies is limited by uncontrolled differences in samples, measures, or data-analysis techniques. Because these factors were controlled in the present study, it is possible to draw stronger conclusions about the precise role played by facet importance.

The results supporting Hypothesis 1 indicate that individual differences in facet importance generally influence the range of affective reactions associated with the amount of a particular job facet. On the one hand, respondents for whom the job facet was more important were more likely to report feeling very dissatisfied or very satisfied about that facet. On the other hand, respondents for whom the job facet was less important were more likely to report moderate levels of satisfaction (i.e., responses closer to the neutral midpoint of the satisfaction-dissatisfaction continuum).

The results supporting Hypothesis 2 suggest that it is redundant to consider facet importance as a moderator of the rela-

<sup>3</sup> The few substantial correlations generally showed that subjects responded in a similar manner with regard to three facets: opportunity to learn new skills, mental effort required, and amount of decision making. The average correlations among these three facets were .63 for facet satisfaction, .45 for facet importance, and .49 for facet amount. Given these correlations, it is not surprising that the results for these three job facets were consistent in terms of supporting both hypotheses. These correlation matrices are available from Robert W. Rice.

relationship between facet satisfaction and overall job satisfaction. Apparently, facet-satisfaction scores are already weighted implicitly by facet importance. There is generally no value in trying to moderate the effects of facet satisfaction by considering differences in facet importance a "second" time. In short, importance does "count" as a determinant of satisfaction, but it only needs to be counted once.

Taken together, the results from these two sets of analyses provide strong convergent- and discriminant-validity evidence (Campbell & Fiske, 1959) for Locke's (1969, 1976) theoretical analysis of the role played by facet importance. From this theory, we were able to predict those relationships for which facet importance would be a significant moderator and those relationships for which it would not be a significant moderator. To the best of our knowledge, no previous study has demonstrated so clearly when the moderating effects of facet importance are important for predicting satisfaction, and when they are not important.

Such a clarification is valuable because the literature seems to treat facet importance in a one-sided manner. Research documenting the failure of facet importance as a moderator is prominently discussed in journal articles and textbooks as a crucial, counterintuitive finding (cf. Butler, 1983; McCormick & Ilgen, 1985; Muchinsky, 1987; Quinn & Mangione, 1973). Furthermore, the conceptual explanation of such effects is usually presented clearly in such sources (i.e., the implicit or redundant weighting argument). With a few notable exceptions (e.g., Locke, 1976, 1984), however, research documenting the success of facet importance as a moderator is seldom discussed. Even in Locke's presentations, however, these two uses of facet importance as a moderator could not be compared directly because the data were collected without all the controls needed to justify such a comparison.

One-sided presentations imply that there is no value in considering facet importance as a moderator in any theory of job satisfaction. The results of the present study suggest that it would be a serious mistake to disregard the moderating effects associated with facet importance. The significant Facet Amount  $\times$  Facet Importance interactions encountered in the present study clearly demonstrate that individual differences in facet importance must be considered when the psychological processes underlying job satisfaction are investigated.

### *Predicting a Null Result*

From Hypothesis 2, we predicted that the Facet Satisfaction  $\times$  Facet Importance interactions would be nonsignificant predictors of overall job satisfaction. There are, of course, logical difficulties in any effort to draw conclusions from results supporting a null hypothesis. We were able to counteract some of these difficulties because we did not base our conclusions entirely on nonsignificant results. In addition to predicting and demonstrating when interactions involving facet importance are nonsignificant (Hypothesis 2), we also predicted and demonstrated when they are significant (Hypothesis 1). There is theoretically meaningful information in the results corresponding to each of these hypotheses. Given past confusion about the role of facet importance, it seemed useful to test both these

hypotheses even if one of them had to be stated as a null hypothesis.

### *Exceptions*

These conclusions about the moderating effects of facet importance are based on the general pattern of results obtained in our moderated regression analyses. It is useful to remember, however, that there were a few exceptions to these general patterns. Three of the 12 facets failed to yield significant moderator effects when such effects were predicted to be significant (see Table 4), and 1 of the 12 facets yielded a significant moderator effect when such effects were predicted to be nonsignificant (see Table 5). We have neither a conceptual nor a statistical explanation for these exceptions to the general pattern of results. They may be merely the product of chance. It will be interesting to see if these same facets yield deviant results in future research.

### *Measurement of Facet Importance*

Because of the high intercorrelations among the seven alternative self-report measures of facet importance included in the present study, we combined them into a single composite measure. Although this composite measure was highly reliable, it is time consuming to collect all seven sets of facet-importance judgments. As a guide for future research, it would be useful to know if any of the individual measures of facet importance are capable of providing results similar to those provided by the composite measure. To address this issue, we repeated our analyses, using each of the seven separate measures of facet importance.

With regard to the interaction between facet amount and facet importance when predicting facet satisfaction (Hypothesis 1), three of the individual measures of facet importance came quite close to matching the results provided by the composite measure of importance: Rating 1 (the direct rating of importance on a 9-point scale), Rank 2 (the ranking of facets in terms of how important it is to get as much as is wanted), and Points (the distribution of 100 points to reflect the relative importance of each job facet). Whereas the composite measure of facet importance yielded nine significant moderator effects, these three individual measures each yielded seven significant moderator effects. The form of the moderator effects associated with these individual measures of facet importance were the same as the composite importance effects shown in Figure 1. The somewhat better performance of the composite measure, compared with any of the individual measures, probably reflects the higher reliability of the composite.

With regard to the interaction between facet satisfaction and facet importance when predicting overall job satisfaction (Hypothesis 2), all seven individual measures of facet importance yielded results similar to those reported in Table 5 for the composite scale. Regardless of how facet importance was measured, this interaction was almost always nonsignificant.

On the basis of the results generated by the seven alternative measures of facet importance, we recommend that, in the future, researchers use the direct rating measure (i.e., Rating 1) when respondent time and simplicity of administration are cru-



cial issues. The other two individual measures that performed well in terms of providing significant moderator effects require more time and are more difficult to administer.

The results provided by these alternative measures of facet importance nicely complement other research in which the measurement of importance was examined. In several previous studies, different methods of assessing importance have yielded quite different results (e.g., Jaccard & Sheng, 1984; Schmitt & Levine, 1977). In contrast, the present study yielded high correlations among the scores provided by the different methods used to assess facet importance. This apparent inconsistency is easily explained by the range of methods employed in each study. We used seven varieties of self-report. In previous studies, different statistical indices of importance (e.g., Schmitt & Levine, 1977) or widely different assessment methods have been used, only some of which were based on self-reports (e.g., Jaccard & Sheng, 1984).

### Generalizability

The results of the present study are based on responses concerning 12 job facets collected from a single nonprobability sample of young adults working part-time while attending college. Such data invite questions concerning generalizability. For example: Can similar results be obtained from other samples of full-time, nonstudent workers? Would other job facets yield results similar to the 12 facets considered in the present study? Can similar results be reproduced with different methods of data collection? Given the centrality of the importance concept within the theoretical framework provided by Locke (1969, 1976), it would be useful for researchers to gather data capable of addressing questions about the generalizability of the results we have reported in the present article.

### References

- Andrews, F. M., & Withey, S. B. (1976). *Social indicators of well-being: Americans' perception of life quality*. New York: Plenum Press.
- Arnold, H. J., & Evans, M. G. (1979). Testing multiplicative models does not require ratio scales. *Organizational Behavior and Human Performance*, 24, 41-59.
- Bass, B. M., Cascio, W. F., & O'Connor, E. J. (1974). Magnitude estimation of expressions of frequency and amount. *Journal of Applied Psychology*, 59, 313-320.
- Blood, M. R. (1971). The validity of importance. *Journal of Applied Psychology*, 55, 487-488.
- Butler, J. K. (1983). Value importance as a moderator of the value fulfillment-job satisfaction relationship: Group differences. *Journal of Applied Psychology*, 68, 420-428.
- Campbell, A., Converse, P., & Rodgers, W. (1976). *The quality of American life*. New York: Russell Sage Foundation.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56, 81-105.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.
- Dachler, H. P., & Hulin, C. L. (1969). A reconsideration of the relationship between satisfaction and judged importance of environmental and job characteristics. *Organizational Behavior and Human Performance*, 4, 252-266.
- Ewen, R. B. (1967). Weighting components of job satisfaction. *Journal of Applied Psychology*, 51, 68-73.
- Jaccard, J., & Sheng, D. (1984). A comparison of six methods for assessing the importance of perceived consequences in behavioral decisions: Applications from attitude research. *Journal of Experimental Social Psychology*, 20, 1-28.
- Jaccard, J., Turrisi, R., & Wan, C. K. (1990). *Interaction effects in multiple regression*. Newbury Park, CA: Sage.
- Locke, E. A. (1969). What is job satisfaction? *Organizational Behavior and Human Performance*, 4, 309-336.
- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297-1349). Chicago: Rand McNally.
- Locke, E. A. (1984). Job satisfaction. In M. Gruneberg & T. Wall (Eds.), *Social psychology and organizational behaviour* (pp. 93-117). London: Wiley.
- Locke, E. A., Fitzpatrick, W., & White, F. M. (1983). Job satisfaction and role clarity among university and college faculty. *Review of Higher Education*, 6, 343-365.
- Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice-Hall.
- Mastekaasa, A. (1984). Multiplicative and additive models of job and life satisfaction. *Social Indicators Research*, 14, 141-163.
- McCormick, E. J., & Ilgen, D. (1985). *Industrial and organizational psychology*. Englewood Cliffs, NJ: Prentice-Hall.
- Mikes, P. S., & Hulin, C. L. (1968). Use of importance as a weighting component of job satisfaction. *Journal of Applied Psychology*, 52, 394-398.
- Mobley, W. H., & Locke, E. A. (1970). The relationship of value importance to satisfaction. *Organizational Behavior and Human Performance*, 5, 463-483.
- Muchinsky, P. M. (1987). *Psychology applied to work* (2nd ed.). Homewood, IL: Dorsey Press.
- Quinn, R. P., & Mangione, T. W. (1973). Evaluating weighted models of measuring jobsatisfaction: A Cinderellastory. *Organizational Behavior and Human Performance*, 10, 1-23.
- Quinn, R. P., & Staines, G. L. (1979). *The 1977 quality of employment survey*. Ann Arbor: University of Michigan, Institute for Social Research.
- Schmitt, N., & Levine, R. L. (1977). Statistical and subjective weights: Some problems and proposals. *Organizational Behavior and Human Performance*, 20, 15-30.
- Zedeck, S. (1971). Problems with the use of moderator variables. *Psychological Bulletin*, 76, 295-310.

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